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Remarks

Claims 1-40 are pending and stand rejected in the above-captioned patent application. Claims 1-23 have been cancelled herein without prejudice. The cancellation of these claims is made solely in the interest of expediting prosecution, and should not be construed as acquiescence in any ground of rejection. Applicants reserve the right to prosecute the originally filed claims in the future. The proposed amendments to the application and the comments in the office action regarding claims 24-40 are now addressed in turn.

Claim Rejections Under 35 USC § 102

Claims 24, 26, 27, 30, 31, and 38-40 were rejected under 35 USC § 102(b) as allegedly being anticipated by Straus et al. (Proc. Natl. Acad. Sci. (1990) 87:1889-1893). Applicants respectfully traverse the rejection.

In order for a reference to anticipate a claimed invention under 35 USC § 102(b), a cited reference must teach each and every element of the claimed invention within its four corners. Applicants respectfully submit that the Straus et al. reference fails to anticipate the claimed invention for the reasons noted below. Claim 24 is directed to a method for analyzing a subset of nucleic acids comprising "(f) dissociating said immobilized double-stranded tester-driver subset of nucleic acids to produce a subset of complementary tester nucleic acids and a subset of immobilized complementary driver nucleic acids; (g) separating said subset of complementary tester nucleic acids from said subset of immobilized complementary driver nucleic acids; (h) hybridizing said subset of complementary tester nucleic acids to probes on a nucleic acid probe array; and (i) determining which of said probes on said array hybridize to said subset of complementary tester nucleic acids, thereby analyzing said subset of complementary tester nucleic acids." Straus et al. does not describe analysis of the tester nucleic acids that are complementary to the driver nucleic acids. Specifically, Straus et al. does not teach dissociation of the double-stranded, immobilized tester-driver hybrid molecules, the separation of the tester nucleic acids that were bound to the driver from the immobilized driver nucleic acids, or hybridization of the separated tester nucleic acids to probes on a

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nucleic acid probe array. Instead, at best, Straus et al. describes further analyzing the tester DNA that does *not* anneal to the driver DNA, but there is no mention of further analysis of the tester DNA that *does* anneal to driver DNA.

Therefore, Straus et al. does not teach all of the elements of the claimed invention and as such cannot anticipate the claimed invention. Accordingly, Applicants respectfully request the withdrawal of the instant rejection of Claim 24, as well as Claims 26, 27, 30, 31, and 38-40 which depend, either directly or indirectly from Claim 1.

Claim Rejections Under 35 USC § 103(a)

Claims 25, 28, 29, and 32-37 were rejected under 35 USC § 103(a) as being unpatentable over Straus et al. (Proc. Natl. Acad. Sci. (1990) 87:1889-1893) as applied to Claims 24, 26, 27, 30, 31, and 38-40 above, and further in view of Wigler et al. (U.S. Patent 5,501,964). The rejection on this basis is respectfully traversed. In order for a reference or a combination of references to support a *prima facie* case of obviousness, they must (a) disclose all elements of the claimed invention, (b) suggest or motivate one of skill in the art to combine or modify those elements to yield the claimed combination, and (c) provide a reasonable expectation of success should the claimed combination be carried out. The cited references, alone or in combination, fail to teach the claimed invention as currently amended.

Applicants submit that Straus et al. fails to teach the presently claimed invention as set forth above. To attempt to overcome deficiencies in the primary reference, the Examiner combined Straus et al. with Wigler et al., for alleging that each of the dependent claims mentioned above were rendered obvious. Applicants submit that none of these references, taken alone or in combination, overcome the deficiencies of Straus et al.

Specifically, Wigler et al. does not teach or suggest analysis of the tester nucleic acids that are complementary to the driver nucleic acids. Specifically, Wigler et al. does not overcome the deficiencies of Straus et al. Nowhere in Wigler et al. is there any description of the dissociation of the double-stranded, immobilized tester-driver hybrid molecules, the separation of the tester nucleic acids that were bound to the driver from the immobilized driver nucleic acids, or hybridization of the separated tester nucleic acids

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to probes on a nucleic acid probe array. As such, even if one of skill was motivated to combine the teachings of Wigler et al. with those of Straus et al., they would not arrive at the present invention. Accordingly, Applicants respectfully request withdrawal of the rejection on this basis.

Amendments to the Claims

Claim 1, as currently amended, includes the word "and" between claim elements (h) and (i) in order to conform to proper claim construction rules as outlined in the MPEP. No new matter is added to the application by virtue of the claim amendment.

Conclusion

For the reasons set forth above, the Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested. If a second telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-625-4603.

Respectfully submitted,

Deana A. Arnold, Ph.D.
Reg. No. 52,567

Perlegen Sciences
2021 Stierlin Court
Mountain View, CA 94043
Tel: (650) 625-4555
Fax: (650) 625-4574